

CLAIMS

What is Claimed is:

- 5 1. A vehicle occupant detection system comprising:
 - a sensor array comprising a plurality of sensors arranged in a vehicle seat;
 - a calibration unit configured to calibrate the sensors to normalize sensor sensitivities
- across the sensor array;
- a weight estimation module configured to estimate a weight of a seat occupant based
- 10 on deflections of the sensors created by the seat occupant;
- a pattern module configured to analyze deflection patterns of the sensors; and
- a decision-making module configured to make a deployment state decision for an
- airbag based on data from one or more of the other modules.